

# State of Kansas

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## 2012 – 2013 Ambient Air Monitoring Network Plan



Department of Health and Environment  
Division of Environment  
Bureau of Air  
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## **Proposed Revisions to the Kansas Ambient Air Monitoring Network: 2012 - 2013 Annual Monitoring Plan**

The Kansas Department of Health and Environment will submit an annual ambient air quality monitoring plan to the United States Environmental Protection Agency. This notice is provided for the purpose of informing the public of this activity, and to provide an opportunity for interested parties to offer additional relevant information and comments to the Kansas Department of Health and Environment. Written comments must be received by the Bureau of Air no later than the close of business on June 30, 2012, to assure consideration prior to submission of this plan. Comments from the interested public should be addressed to:

Kansas Department of Health and Environment  
Bureau of Air  
1000 SW Jackson, Suite 310  
Topeka, KS 66612-1366  
Attention: Mike Martin

### **Air Monitoring**

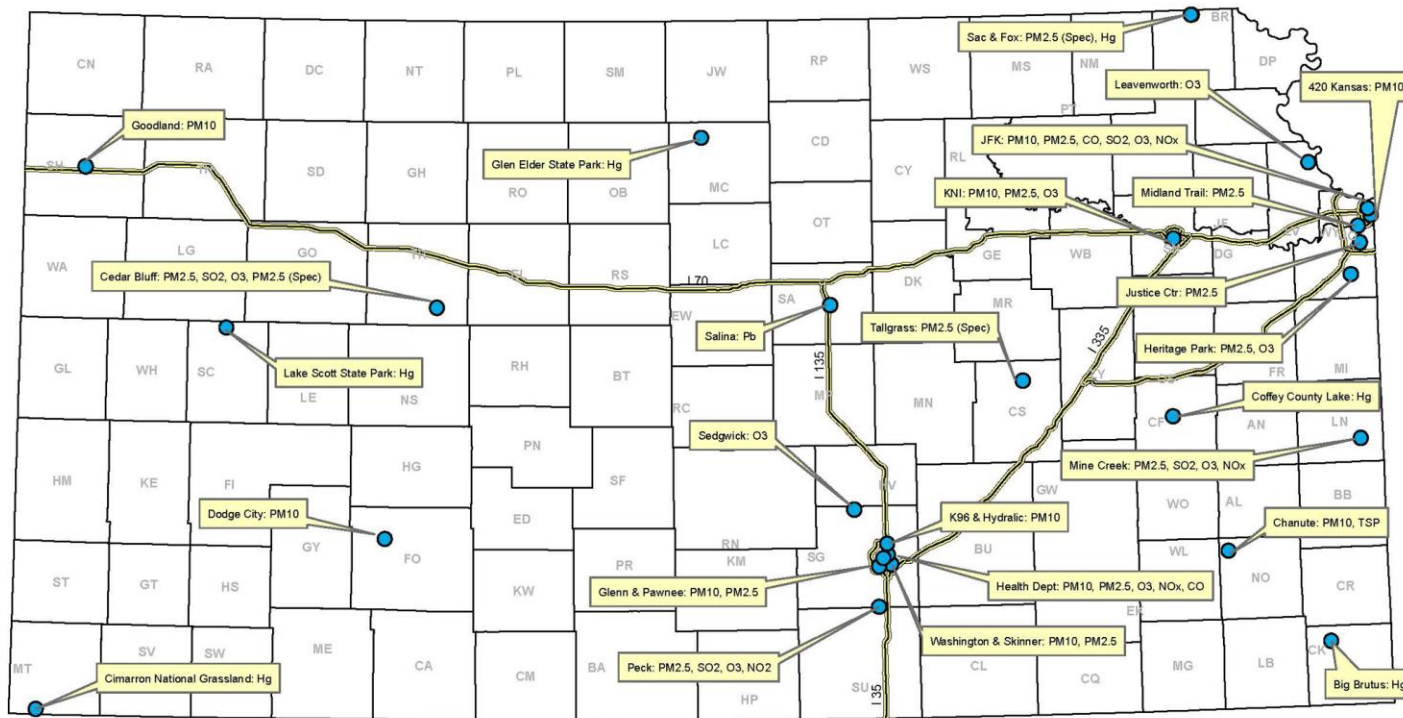
The Bureau of Air's, Air Monitoring and Planning Section administers the air monitoring and modeling program and the emissions inventory program. In cooperation with two local agencies, section staff operates the Kansas Ambient Air Monitoring Network, which provides air quality data from 20 sites across the state (Figure 1). The monitoring data is analyzed to determine compliance with [federal standards for criteria pollutants](#) and to evaluate air quality trends. In addition, the department has 6 mercury wet deposition monitoring sites located across the state. Staff members also conduct an annual emissions inventory of pollutants emitted from permitted facilities and other sources for the entire state. Staff who conduct air quality modeling use the emission inventory data. Modeling helps to better understand the causes of air pollution and to develop pollution reduction strategies in targeted areas. Such pollution reduction strategies are incorporated into state and regional plans to protect the public health, welfare and environment from the negative effects of air pollution.

### **National Monitoring Network Design**

The Environmental Protection Agency (EPA) developed a National Ambient Air Monitoring Strategy (NAAMS). The goal of the strategy is "to improve the scientific and technical competency of existing air monitoring networks to be more responsive to the public, and the scientific and health communities, in a flexible way that accommodates future needs in an optimized resource-constrained environment" (National Ambient Air Monitoring Strategy Document). As part of the Strategy, a network design has been implemented called the [National Core Network \(NCore\)](#). This network will accommodate the overall strategic goals as well as determine air quality trends, report to the public, assess emission reduction strategy effectiveness, provide data for health assessments and help determine attainment / non-attainment status. NCore introduces a new multi-pollutant monitoring component, and addresses the following major objectives:

- **Provide timely reporting of data to the public** through the [AIRNow](#) Web site ([www.airnow.gov](http://www.airnow.gov)), air quality forecasting and other public reporting mechanisms;

## Kansas Air Monitoring Sites, May 2012



- **Support the development of emission reduction strategies** through air quality model evaluation and other observational methods;
- **Provide accountability of emission reduction strategy progress** through tracking long-term trends of criteria and non-criteria pollutants and their precursors;
- **Support long-term health assessments** that contribute to ongoing review of [National Ambient Air Quality Standards \(NAAQS\)](#);
- **Evaluate compliance with NAAQS** through designation of attainment / non-attainment areas; and
- **Support scientific studies** ranging across technological, health, and atmospheric process disciplines.

The Kansas Department of Health and Environment (KDHE) ambient air quality monitoring program has already accomplished much of the network reconfiguration needed to meet NCore objectives. Since 1999, as a result of implementing a major network reconfiguration associated with promulgation of the National Ambient Air Quality Standard (NAAQS) for PM<sub>2.5</sub>, the State of Kansas has:

- 1) completed a primary disinvestment in PM<sub>10</sub> sampling;
- 2) established five multi-pollutant sites, including one rural background, two rural transport and two urban trends sites;
- 3) expanded the ozone monitoring network in the Kansas City metropolitan area to optimize spatial distribution of monitors, adequately monitor background and transport and provide better coverage for AirNow mapping; and
- 4) added two IMPROVE-protocol (regional haze) sites in cooperation with EPA Region VII and the [Central Regional Air Planning Association \(CENRAP\)](#).

Certain NCore requirements necessitate modification of the Kansas Ambient Air Monitoring Network. In 2009, KDHE prepared a Monitoring Plan for NCore, which included two monitoring locations, one urban and one rural. The two monitoring locations were proposed and accepted by EPA Region VII on October 30, 2009.

## NCore Site

20-209-0021; Kansas City:

This site, which currently serves as an urban core multi-pollutant monitoring station, is under further development as an NCore station. The site is located close to Nebraska Ave and North 10<sup>th</sup> Street, Kansas City, Kansas (N 39.1175; W -94.63555).



Figure 1. Kansas City, KS JFK NCore Site Map

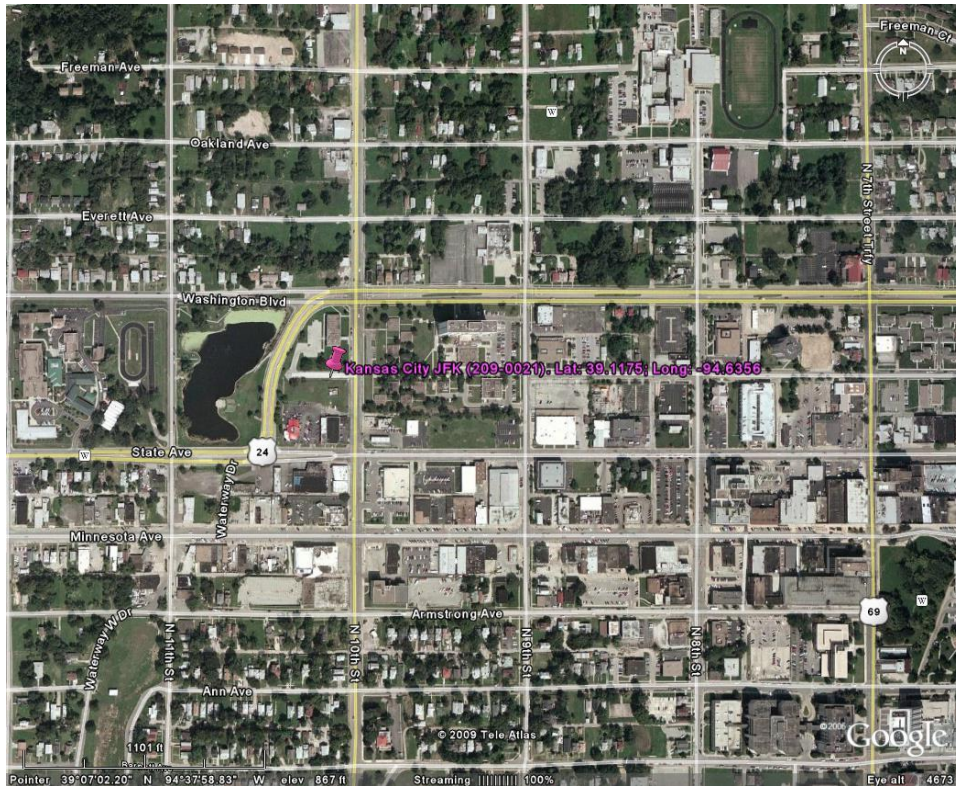


Figure 2. Kansas City, KS JFK NCore Site



Figure 3. Kansas City, KS JFK NCore Site



Figure 4. Kansas City, KS JFK NCore Site



## **IMPROVE Visibility Site**

20-017-0001; Tallgrass Prairie National Preserve:

This site operates as an Interagency Monitoring of Protected Visual Environments (IMPROVE) protocol sampler. Relocation of this site to another part of the Tallgrass Prairie National Preserve is likely, contingent upon pending negotiations with the National Park Service. The site is located at N 38.433611; W -96.55944, northwest of Strong City, Kansas on Highway 177.

20-195-0001; Cedar Bluff Reservoir:

This location was chosen in Western Kansas to serve as a background site for several pollutants, including SO<sub>2</sub>, ozone, and PM<sub>2.5</sub>. It also operates as an Interagency Monitoring of Protected Visual Environments (IMPROVE) protocol sampler site. The site is located at N 38.77027; W -99.76361, on the south side of Cedar Bluff Reservoir in Trego County.

## **Lead (Pb) Monitoring Requirements**

### ***Source-oriented Pb Monitoring***

According to 40 CFR Part 58, Appendix D, paragraph 4.5(a), state and, where appropriate, local agencies are required to conduct ambient air monitoring for lead (Pb) considering Pb sources that are expected to or have been shown to contribute to a maximum Pb concentration in ambient air in excess of the NAAQS. At a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each Pb source that emits one-half (0.5) or more tons per year. A search of reported emissions for 2007 revealed that only one source in Kansas exceeds the one-half ton threshold. This source is located at Salina.

According to 40 CFR Part 58, Appendix D, paragraph 4.5(a), source-oriented monitors are to be sited at the location of predicted maximum concentration in ambient air taking into account the potential for population exposure, and logistics. Typically, dispersion modeling will be required to identify the location of predicted maximum concentration.

Dispersion modeling was performed by KDHE to determine the area of maximum concentration for sampler placement. KDHE prepared a Monitoring Plan for Airborne Lead in 2009.

The Pb site near the Exide Technologies facility at Salina, KS has been designated with AQS site ID 020-169-0004. A high volume (HiVol), total suspended particulate (TSP) sampler is running at the site on a 1/6 day schedule and began sampling on February 2, 2010. The monitoring site is located at the following legal description:

SOUTH INDUSTRIAL AREA, S1, T15, R3, BLOCK 2, ACRES 13.4, LTS 21-30 EXC E 32 LT 30



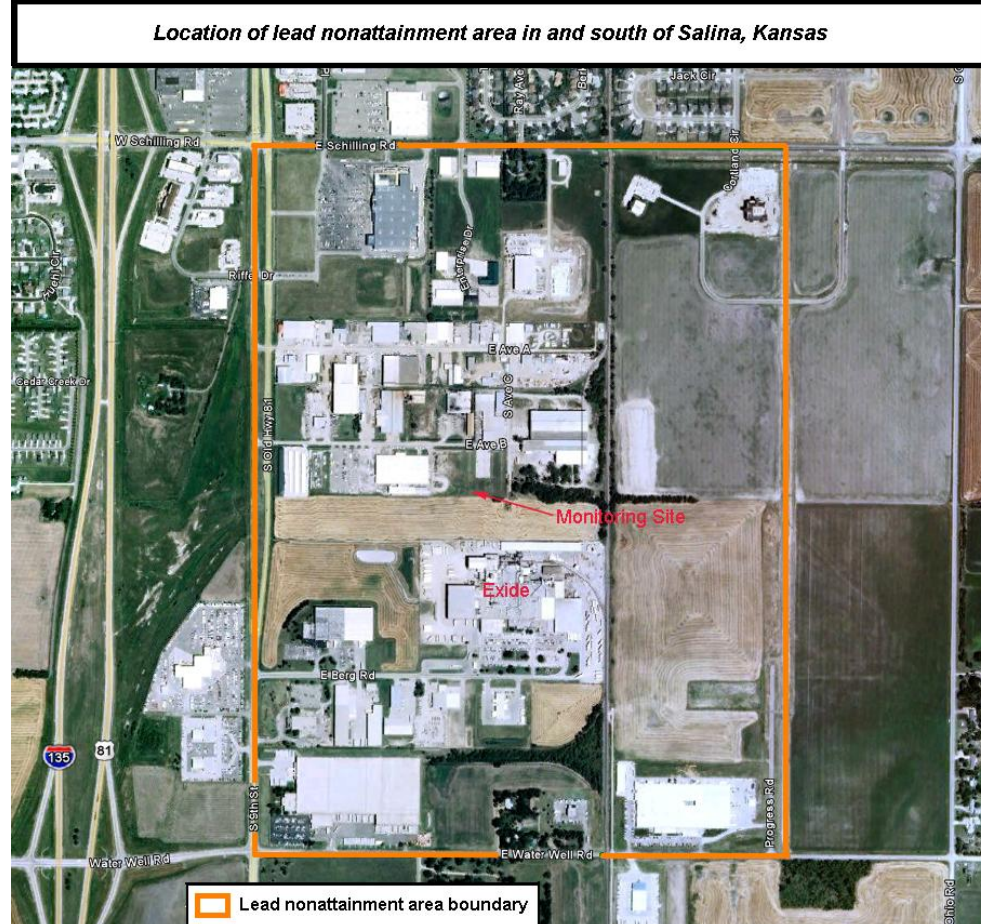
Figure 5. Salina, KS Pb Source Monitoring Site



Figure 6. Salina, KS Pb Source Monitoring Site



Figure 7. Salina, KS Pb Nonattainment Area



### ***Population based monitoring for lead***

EPA is also requiring lead monitoring in large urban areas. These monitors will be located along with multi-pollutant ambient monitoring sites (known as the “NCore network”). Lead monitoring at these sites began January 1, 2012. KDHE located a high volume (HiVol), total suspended particulate (TSP) sampler at the JFK NCore site in Kansas City, Kansas to fulfill this requirement. It is running at the site on a 1/6 day schedule and began running December 27, 2011 and took its first sample on January 4, 2012.

### **Sulfur Dioxide Monitoring**

On June 2, 2010, EPA revoked the primary annual and 24-hour SO<sub>2</sub> standards from 30 ppb and 140 ppb, respectively, to a 1-hour standard of 75 ppb. The new SO<sub>2</sub> rule, published June 22, 2010, also stated the following:

- Any new monitors must be in operation by January 1, 2013.
- Monitoring required in Core Based Statistical Areas (CBSA's) based on population size and SO<sub>2</sub> emissions.



- Additional monitoring would also be required based on the state's contribution to national SO<sub>2</sub> emissions, which could be placed either within or outside a CBSA's.
- Reporting requirement added to include maximum 5-minute block average of each hour.

KDHE currently monitors for SO<sub>2</sub> at the following sites; Cedar Bluff, Peck (Wichita), Mine Creek and JFK (Kansas City). Although originally a site was to be required by EPA in Manhattan based on 2008 NEI and census data, KDHE used 2009 NEI and census data to calculate a new Population Weighted Emissions Index for Manhattan, and found that no new SO<sub>2</sub> monitor will be required. This was caused by significant reductions in SO<sub>2</sub> at the Jeffrey Energy Center with the installation of wet scrubbers on all three units (see table #1).

Table #1

<b>CBSA</b>	<b>County/counties</b>	<b>2008 PWEI</b>	<b>2009 PWEI</b>
Atchison, KS	Atchison	0	0
Coffeyville, KS	Montgomery	36	20
Dodge City, KS	Ford	2	3
Emporia, KS	Chase, Lyon	0	0
Garden City, KS	Finney	80	82
Great Bend, KS	Barton	54	0
Hays, KS	Ellis	0	0
Hutchinson, KS	Reno	2	0
Kansas City, MO-KS	Franklin (KS), Johnson (KS), Leavenworth (KS), Linn (KS), Miami (KS), Wyandotte (KS), Bates (MO), Caldwell (MO), Cass (MO), Clay (MO), Clinton (MO), Jackson (M), Lafayette (MO), Platte (MO), Ray (MO)	462,597	159,338
Lawrence, KS	Douglas	311	322
Liberal, KS	Seward	4	1
Manhattan, KS	Geary, Pottawatomie, Riley	5,786	736
McPherson, KS	McPherson	13	13
Parsons, KS	Labette	4	0
Pittsburg, KS	Crawford	0	0
Salina, KS	Ottawa, Saline	0	0
St. Joseph, MO-KS	Doniphan (KS), Andrew (MO), Buchanan (MO), DeKalb (MO)	468	470
Topeka, KS	Jackson, Jefferson, Osage, Shawnee, Wabaunsee	1,279	1,357
Wichita, KS	Butler, Harvey, Sedgwick, Sumner	934	929
Winfield, KS	Cowley	0	0

<http://www.epa.gov/ttnnaags/standards/so2/fr/20100622.pdf>

"For any CBSA with a calculated PWEI value equal to or greater than 5,000, but less than 100,000, a minimum of one SO<sub>2</sub> monitor is required within that CBSA.

## Mercury Deposition Monitoring in Kansas

KSA 75-5673 required that the Kansas Department of Health and Environment (KDHE) establish a statewide mercury deposition network consisting of at least six monitoring sites. Monitoring for a period of time long enough to determine trends (five or more years) is also specified. The network has been designed to assure compatibility with the national Mercury Deposition Network (MDN). The MDN, coordinated through the National Atmospheric Deposition Program (NADP), is designed to study and quantify the atmospheric fate and deposition of mercury. The MDN collects weekly samples of wet deposition (rain and snow) for analysis to determine total mercury. The complete Kansas Mercury Wet Deposition Monitoring Network (KMDN) consists of six sites distributed across the state. The locations of existing and future sites in the states of Nebraska and Oklahoma were also taken into consideration to optimize regional mercury network coverage. A map of the network appears below in Figure 8.

Figure 8. Kansas Mercury Deposition Network and sites in Nebraska and Oklahoma



## Nitrogen Dioxide Monitoring Network

The state is required by 40 CFR 58 Appendix D to install and operate one microscale near-road NO<sub>2</sub> monitoring station to be operational by January 1, 2013. The state is beginning to perform preliminary analysis on the selection of appropriate near-road monitoring sites and

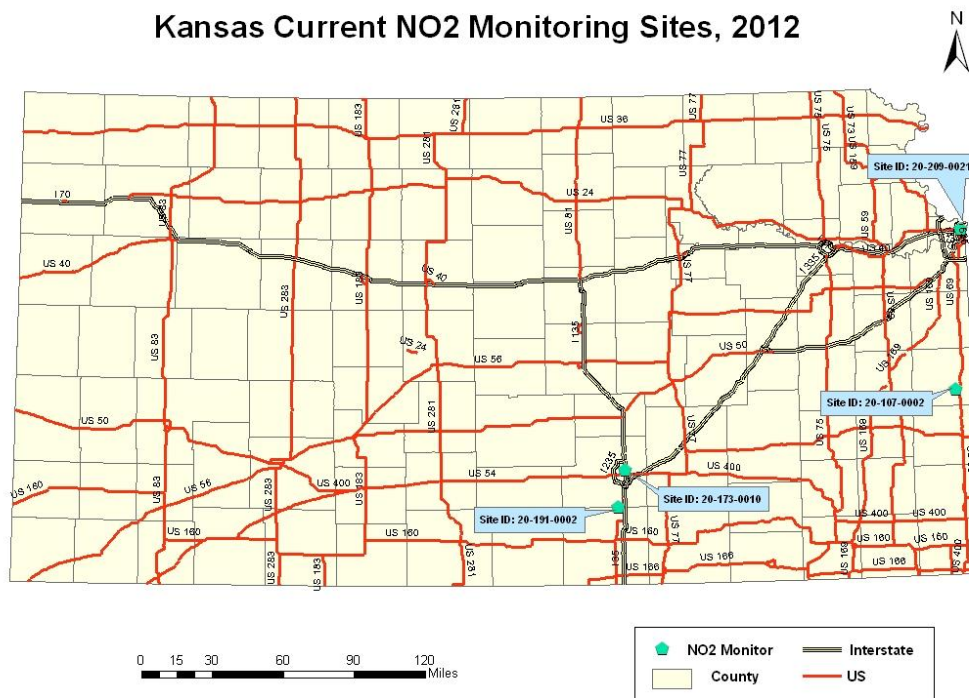
will await funding to establish these sites. KDHE has heard that EPA is in the process of amending the applicability requirements of 40 CFR 58 Appendix D.

Two criteria have been set up for NO<sub>2</sub> monitoring:

- Near-road NO<sub>2</sub> monitoring; 1 micro-scale site would be required in CBSAs  $\geq$  350,000 at a location of expected highest hourly NO<sub>2</sub> concentrations sited near a major road with high AADT (Annual Average Daily Traffic) counts.
- Community-wide; required in CBSAs  $\geq$  1 million at a location of expected highest NO<sub>2</sub> concentrations representing neighborhood or larger (urban) spatial scale.

Based on the near-road criteria, one monitor site would be expected in the Kansas City Metropolitan Area but would probably be on the Missouri side of the CBSA. There would also be one site located in the City of Wichita. Based on the community-wide criteria, the Kansas City CBSA would be required to have a monitor.

Figure 9. Kansas Nitrogen Dioxide Monitoring Sites, 2012





## Ozone Monitoring Network

### ***Current O<sub>3</sub> Standard and Monitoring Requirements***

Current national ambient air quality standards (NAAQS) for O<sub>3</sub> have been set to 0.075 parts per million (ppm) for both the primary standard and the secondary standard (<http://www.epa.gov/fedrgstr/EPA-AIR/2008/March/Day-27/a5645.pdf>).

### ***State of Kansas Current O<sub>3</sub> Monitoring Network***

Current Kansas O<sub>3</sub> monitoring network includes 9 monitors located throughout the state. Monitors are listed in Table 2 along with detailed site information. No collocated O<sub>3</sub> measurements are available in Kansas.

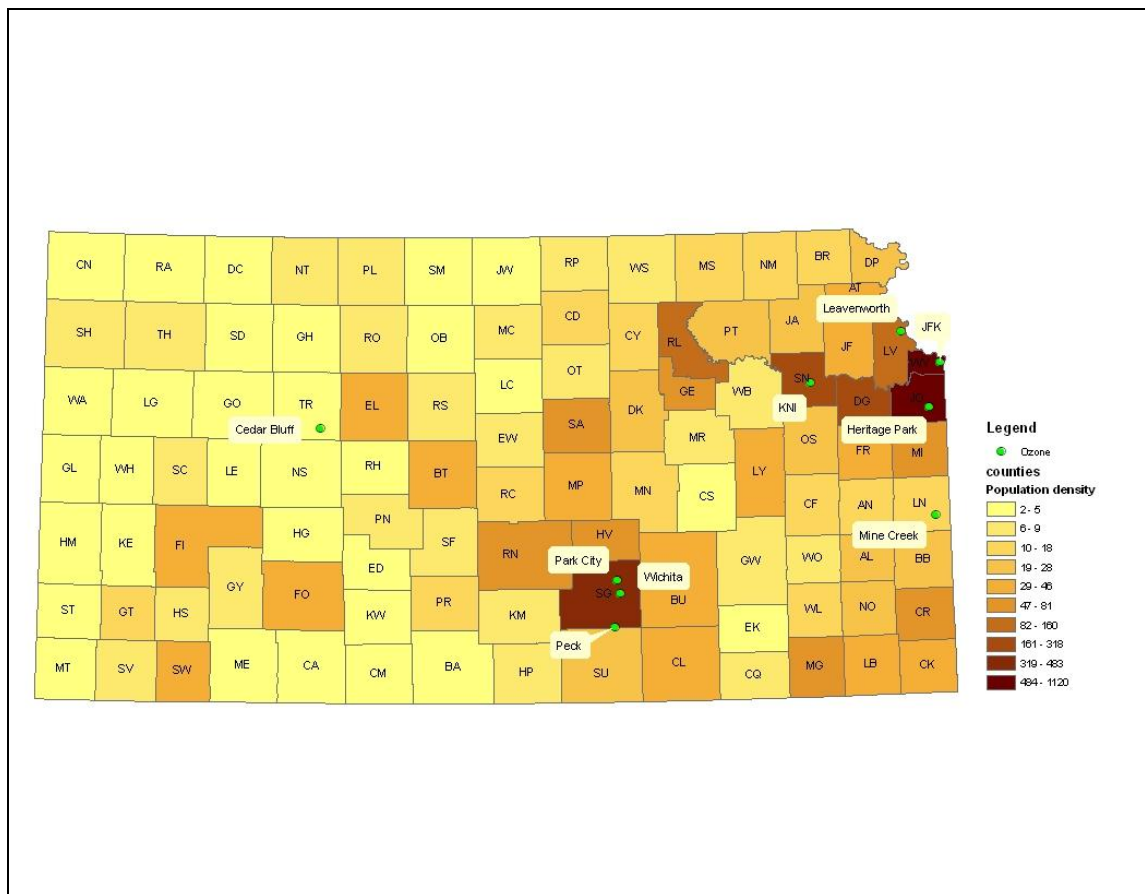
Table 2. State of Kansas O<sub>3</sub> Monitor Site ID and Location.

Site Name	Site ID	Latitude	Longitude	Address
Heritage Park	091 - 0010	38.83859	-94.74643	13899 W 159th (Heritage Park)
Leavenworth	103 - 0003	39.32746	-94.95127	2010 Metropolitan
Mine Creek	107 - 0002	38.13583	-94.731944	County Rd 1103 .7 Mi South Of K-52 (Mine Creek)
Sedgwick	173 - 0018	37.89750	-97.49207	12831 W. 117N Sedgwick,KS
Wichita Health Dept.	173 - 0010	37.70111	-97.313889	Health Dept., 1900 East 9th St.
Topeka KNI	177 - 0013	39.02427	-95.71128	2501 Randolph Avenue
Peck	191 - 0002	37.47694	-97.366389	707 E 119th St South,Peck Community Bldg
Cedar Bluff	195 - 0001	38.77028	-99.763611	Cedar Bluff Reservoir, Pronghorn & Muley
Kansas City JFK	209 - 0021	39.1175	-94.635556	1210 N. 10th St.,JFK Recreation Center

Figure 10 showed the population density of the State of Kansas along with the monitoring sites (<http://www.census.gov/popest/counties/tables/CO-EST2008-01-20.xls>). Among these monitors, Topeka KNI, Peck and Kansas City JFK are urban scale monitors measuring population exposure; Park City is urban scale monitor measuring highest concentration; Heritage Park and Leavenworth are neighborhood scale monitors measuring population

exposure; Mine Creek and Peck are regional scale monitors measuring regional transport; and Cedar Bluff is regional scale monitor measuring the general background O<sub>3</sub> concentration in the state of Kansas.

Figure 10. State of Kansas Population Density Map and the Location of O<sub>3</sub> Monitors.



## PM<sub>2.5</sub> Monitoring Network

### ***Current PM<sub>2.5</sub> Standard and Monitoring Requirements***

Current national ambient air quality standards (NAAQS) for PM<sub>2.5</sub> have been set to 15 micrograms per meter cubed annual average and 35 micrograms per meter cubed 24-hour average for both the primary standard and the secondary standard (<http://www.epa.gov/ttn/naaqs/standards/pm/data/fr20061017.pdf>). The annual standard is based on a 3 year average of the weighted annual mean. The 24-hour standard is based on a 3 year 98<sup>th</sup> percentile average of 24-hour values. Current minimum monitoring

requirements for PM<sub>2.5</sub> are shown in Table 3 (<http://edocket.access.gpo.gov/2006/pdf/06-8478.pdf>).

Table 3. PM<sub>2.5</sub> Minimum Monitoring Requirements (Number Of Stations per MSA)

Population Category	3-yr design value > 85% of NAAQS	3-yr design value < 85% of NAAQS
> 1,000,000	3	2
500,000 - 1,000,000	2	1
50,000 - <500,000	1	0

In addition to the minimum number of monitors required, there are also requirements for a minimum number of continuous monitors to be deployed. Fifty percent of the minimum required number of monitoring sites are required to be a continuous PM<sub>2.5</sub> monitor. For Kansas this means that at a minimum two continuous PM<sub>2.5</sub> monitors need to be operated in the state.

Applying the minimum monitoring requirements to Kansas urban areas, population totals and historical PM<sub>2.5</sub> measurements results in the design requirements shown in Table 4. According to Tables 3 and 4, PM<sub>2.5</sub> monitors could be removed from the Wichita area and the Kansas City area assuming the Missouri side of Kansas City retains a PM<sub>2.5</sub> monitor(s).

Table 4. Minimum Number of PM<sub>2.5</sub> Monitors Required in Kansas MSA

MSA	Population (07/08/2008)	Number of Existing PM <sub>2.5</sub> Monitors	PM <sub>2.5</sub> Monitors Required
Wichita, KS	603,716	3	1
Topeka, KS	229,619	1	0
Lawrence, KS	114,748	0	0
Kansas City, MO-KS	2,002,047	4 (KS side only)	2

### ***State of Kansas Current PM<sub>2.5</sub> Monitoring Network***

Current Kansas PM<sub>2.5</sub> monitoring network includes 13 monitors located throughout the state at 11 different monitoring sites. Ten of the monitors are filter based while the remaining three monitors are continuous Tapered Element Oscillating Microbalance (TEOM). Only

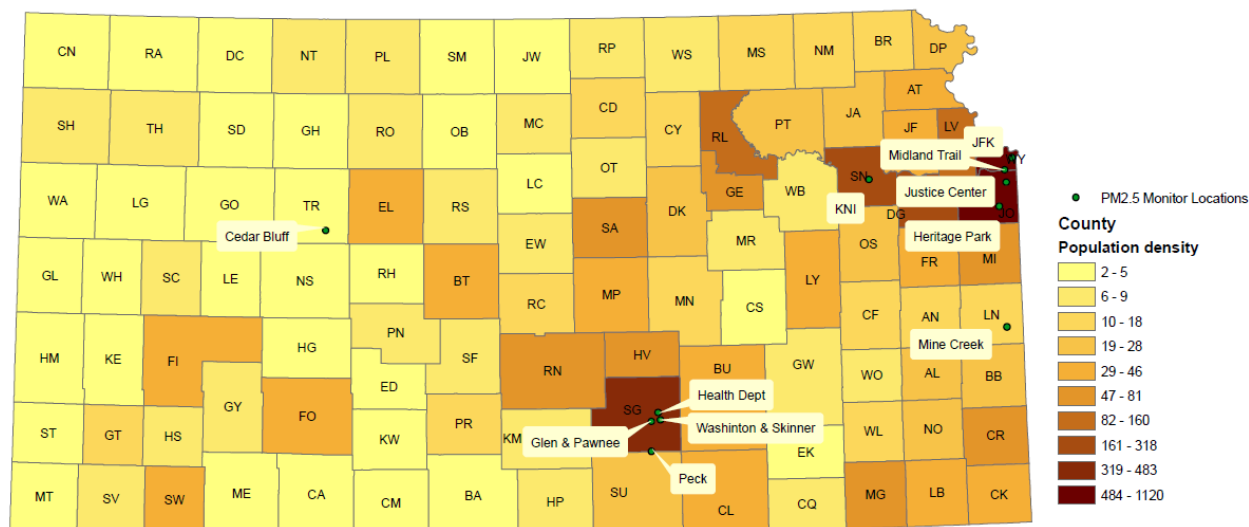
one of the TEOM monitors, located at JFK, is equipped with a Filter Dynamics Measurement System (FDMS) and is considered a federal reference monitor. Monitor locations and type are listed in Table 5 along with detailed site information. Two sites have collocated filterable and continuous PM<sub>2.5</sub> measurements, one at JFK in Kansas City and one at Mine Creek south of Kansas City.

Table 5. State of Kansas PM<sub>2.5</sub> Monitor Site ID and Location.

Site Name	Site ID	City	Address	Lat_DD	Lon_DD	PM <sub>2.5</sub>	CPM <sub>2.5</sub>
Cedar Bluff	195 - 0001	Cedar Bluff	Cedar Bluff Reservoir, Pronghorn & Muley	38.77028	-99.7636	NO	YES
Justice Center	091 - 0007	Overland Park	85th And Antioch	38.97444	-94.6869	YES	NO
Heritage Park	091 - 0010	Olathe	13899 W 159th (Heritage Park)	38.83859	-94.7464	YES	NO
Washington & Skinner	173 - 0008	Wichita	Fire Sta#11, G.Washington Blvd & E.Skinner	37.65972	-97.2972	YES	NO
Glenn & Pawnee	173 - 0009	Wichita	Fire Sta#12 Glenn & Pawnee	37.65111	-97.3622	YES	NO
Health Dept.	173 - 0010	Wichita	Health Dept., 1900 East 9th St.	37.70111	-97.3139	YES	NO
KNI	177 - 0013	Topeka	2501 Randolph Avenue	39.02427	-95.7113	YES	NO
Peck	191 - 0002	Peck	707 E 119th St South, Peck Community Bldg	37.47694	-97.3664	YES	NO
Midland	209 - 0022	Kansas City	3101 S. 51st, Midland Trail Elem. School	39.04583	-94.6944	YES	NO
Mine Creek	107 - 0002	Mine Creek	County Rd 1103 .7 Mi South Of K-52 (Mine Creek)	38.13583	-94.7319	YES	YES
JFK	209 - 0021	Kansas City	1210 N. 10th St., JFK Recreation Center	39.1175	-94.6356	YES	YES

Figure 11 shows the population density of the State of Kansas along with the PM<sub>2.5</sub> monitoring sites (<http://www.census.gov/popest/counties/tables/CO-EST2008-01-20.xls>). All of these monitors have 3 year design values below the 85% of the NAAQS concentration category.

Figure 11. State of Kansas Population Density Map and the Location of PM<sub>2.5</sub> Monitors.



## PM<sub>10</sub> Monitoring Network

### ***Current PM<sub>10</sub> Standard and Monitoring Requirements***

Current national ambient air quality standards (NAAQS) for PM<sub>10</sub> has been set to 150 micrograms per meter cubed for both the primary standard and the secondary standard (<http://www.epa.gov/ttn/naaqs/standards/pm/data/fr20061017.pdf>). This standard is not to be exceeded more than once per year on average over 3 years. Current minimum monitoring requirements for PM<sub>10</sub> are shown in Table 6 (<http://edocket.access.gpo.gov/2006/pdf/06-8478.pdf>).

Table 6. PM<sub>10</sub> Minimum Monitoring Requirements (Number Of Stations per MSA)<sup>1</sup>

Population Category	High Concentration <sup>2</sup>	Medium Concentration <sup>3</sup>	Low Concentration <sup>4</sup>
> 1,000,000	6 - 10	4 - 8	2 - 4
500,000 - 1,000,000	4 - 8	2 - 4	1 - 2
250,000 - 500,000	3 - 4	1 - 2	0 - 1
100,000 - 250,000	1 - 2	0 - 1	0



<sup>1</sup> Selection of urban areas and actual numbers of stations per area within the ranges shown in this table will be jointly determined by EPA and the State Agency.

<sup>2</sup> High concentration areas are those for which ambient PM<sub>10</sub> data show ambient concentrations exceeding the PM<sub>10</sub> NAAQS by 20% or more.

<sup>3</sup> Medium concentration areas are those for which ambient PM<sub>10</sub> data show ambient concentrations exceeding 80% of the PM<sub>10</sub> NAAQS.

<sup>4</sup> Low concentration areas are those for which ambient PM<sub>10</sub> data show ambient concentrations < 80% of the PM<sub>10</sub> NAAQS.

<sup>5</sup> These minimum monitoring requirements apply in the absence of a design value.

Applying the minimum monitoring requirements to Kansas urban areas, population totals and historical PM<sub>10</sub> measurements results in the design requirements shown in Table 7. According to Tables 6 and 7, PM<sub>10</sub> monitors could be removed from the Wichita area and the Kansas City area assuming the Missouri side of Kansas City retains a PM<sub>10</sub> monitor.

Table 7. Minimum Number of PM<sub>10</sub> Monitors Required in Kansas MSA

MSA	Population (07/08/2008)	Number of Existing PM <sub>10</sub> Monitors	PM <sub>10</sub> Monitors Required
Wichita, KS	603,716	4	1 – 2
Topeka, KS	229,619	1	0 – 1
Lawrence, KS	114,748	0	0
Kansas City, MO-KS	2,002,047	2 (KS side only)	2 – 4

### ***State of Kansas Current PM<sub>10</sub> Monitoring Network***

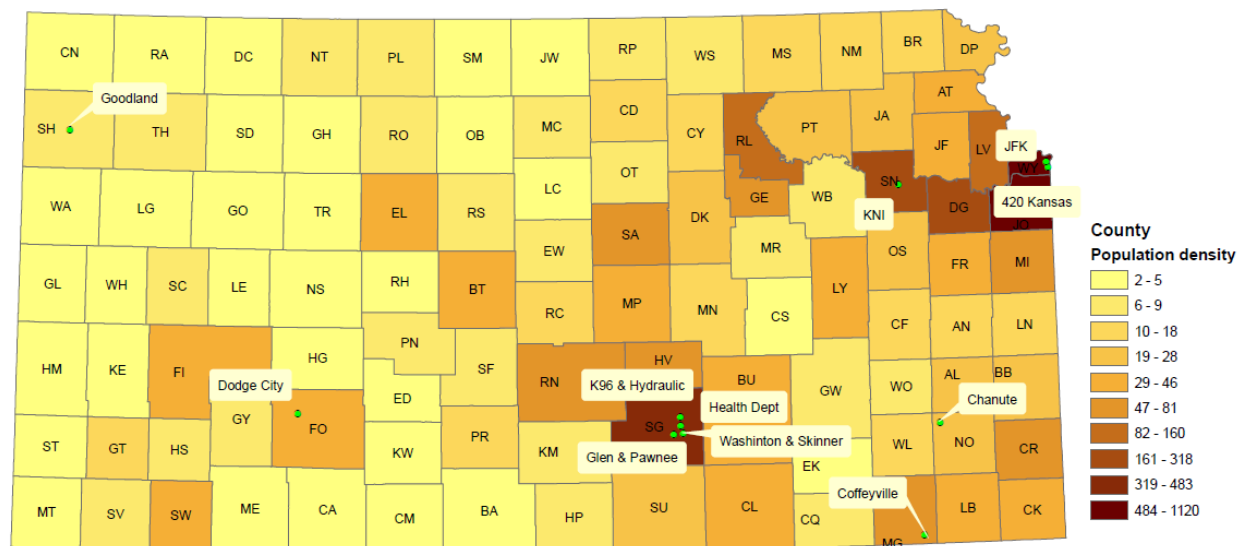
Current Kansas PM<sub>10</sub> monitoring network includes 13 monitors located throughout the state at 11 monitoring sites. Six of the monitors are filter based while the remaining seven monitors are continuous. Monitor locations and type are listed in Table 8 along with detailed site information. Two sites have collocated filterable and continuous PM<sub>10</sub> measurements, one in Topeka and one in Wichita.

Table 8. State of Kansas PM<sub>10</sub> Monitor Site ID and Location.

Site Name	Site ID	City	Address	Lat_DD	Lon_DD	PM <sub>10</sub>	Cont. PM <sub>10</sub>
Dodge City	057 - 0002	Dodge City	Dodge City Community College	37.77527	-100.035	NO	YES
Coffeyville	125 - 0006	Coffeyville	Union & E. North /Ne Corner Intersection	37.046944	-95.613333	NO	YES
Washington & Skinner	173 - 0008	Wichita	Fire Sta#11, G.Washingtonblvd & E.Skinne	37.659722	-97.297222	NO	YES
Glen & Pawnee	173 - 0009	Wichita	Fire Sta#12 Glen & Pawnee	37.651111	-97.362222	NO	YES
Health Dept	173 - 0010	Wichita	Health Dept., 1900 East 9th St.	37.701111	-97.313889	NO	YES
Chanute	133 - 0002	Chanute	1500 West Seventh	37.676111	-95.474444	YES	NO
Goodland	181 - 0001	Goodland	City Fire Sta , 1010 Center	39.348333	-101.713056	YES	NO
420 Kansas	209 - 0015	Kansas City	Fire Sta#3 ,420 Kansas Ave	39.087778	-94.621389	YES	NO
JFK	209 - 0021	Kansas City	1210 N. 10th St.,JFK Recreation Center	39.1175	-94.635556	YES	NO
K-96 And Hydraulic	173 - 1012	Wichita	K-96 And Hydraulic	37.747222	-97.316389	YES	YES
KNI	177 - 0013	Topeka	2501 Randolph Avenue	39.02427	-95.71128	YES	YES

Figure 12 shows the population density of the State of Kansas along with the monitoring sites (<http://www.census.gov/popest/counties/tables/CO-EST2008-01-20.xls>). All of these monitors have 3 year design values in the Low (< 80% of the NAAQS) concentration category.

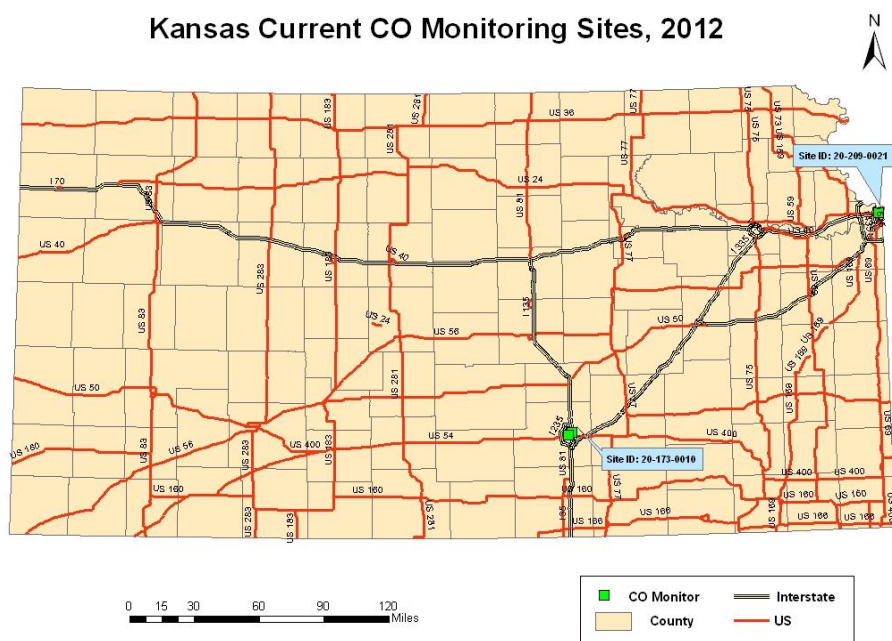
Figure 12. State of Kansas Population Density Map and the Location of PM<sub>10</sub> Monitors.



## Carbon Monoxide

EPA conducted a review of the CO NAAQS and decided to retain the existing standards in 2011. The BOA currently has two CO monitoring site in the state. One is located at the JFK site in Kansas City, Kansas and the other is located at the Health Department site in Wichita.

Figure 13. Kansas Carbon Monoxide Monitoring Sites, 2012



The KDHE and the BNSF Railway Company have agreed to establish a PM<sub>2.5</sub> and PM<sub>10</sub> monitoring site near the BNSF Kansas City Intermodal Facility to determine its impacts on local scale air quality. The site will be located near 191<sup>st</sup> Street between Four Corners Road and Waverly Road in Johnson County. The monitoring project shall be conducted for a two-year period commencing with the opening of the Intermodal Facility.

[illegible]

20-107-0002: Mine Creek:

Monitor type: Special Purpose Monitor (SPM)

Termination of the Total Suspended Particulate Matter sampler (TSP) will occur in 2012. This pollutant is not a criteria pollutant, and this is the last TSP sampler in the network. The data provided does not enhance the data provided by the PM<sub>10</sub> HiVol sampler at this location. Replacement of the PM<sub>10</sub> HiVol sampler with a continuous monitor is being considered. As part of the Kansas five year network assessment, moving the Mine Creek sampling site to this location or another site in Eastcentral Kansas is also under consideration.

20-173-0008; Wichita:

The relocation of the PM<sub>2.5</sub> sampler at this site, which is located at the corner of George Washington Ave. and Skinner (37.659722; -97.297222), will occur in 2012. Levels of PM<sub>2.5</sub> are consistent across the Wichita area because fine particulate matter is a regional-scale pollutant. Relocation of this monitor would not adversely affect the distribution of PM<sub>2.5</sub> samplers in the Wichita area. This sampler has never measured an exceedance of the NAAQS for PM<sub>2.5</sub>. KDHE will move this PM<sub>2.5</sub> sampler to the K96 & Hydraulic (20-173-1014) monitoring site. Also as part of the Kansas 2012-13 Network Plan, termination of the PM<sub>10</sub> sampler at this site will occur in 2012.

Monitor type: State or Local Air Monitoring Station (SLAMS)

20-173-1012; Wichita:

Termination of the collocated PM<sub>10</sub> HiVol sampler at this site, which is located at Kansas 96 Highway and Hydraulic (37.747222; -97.316389), is likely. The HiVol runs on a one in six day schedule, while the continuous monitor provides the same data on a daily (and hourly) basis. There is no scientific or technical reason for continuation of this duplication of effort.

Monitor type: Special Purpose Monitor (SPM)

20-209-0022; Midland Trail, Kansas City:

As part of the Kansas five year network assessment, termination of the PM<sub>2.5</sub> sampler at this site, which is located at Midland Trail (39.045833; -94.694444), will occur in 2012. Levels of PM<sub>2.5</sub> are consistent across the Kansas City area because fine particulate matter is a regional-scale pollutant. Termination of this monitor would not adversely affect the distribution of PM<sub>2.5</sub> samplers in the Kansas City area. This sampler has never measured an exceedance of the NAAQS for PM<sub>2.5</sub>.

Monitor type: State or Local Air Monitoring Station (SLAMS)

20-209-0015; 420 Kansas, Kansas City:

As part of the Kansas five year network assessment, termination or relocation (in the Kansas City area) of the PM<sub>10</sub> sampler at this site, which is located at 420 Kansas (39.087778; -94.621389), is likely. This sampler has never measured an exceedance of the NAAQS for PM<sub>10</sub>.

Monitor type: State or Local Air Monitoring Station (SLAMS)

Special Project Monitoring; Edgerton, KS BNSF Intermodal Site Entrance

As part of a short term special monitoring study with the Burlington Northern Santa Fe Railway Company, KDHE will run a continuous PM<sub>10</sub> sampler at a site near the entrance of the Intermodal facility near Edgerton, KS. Monitoring